

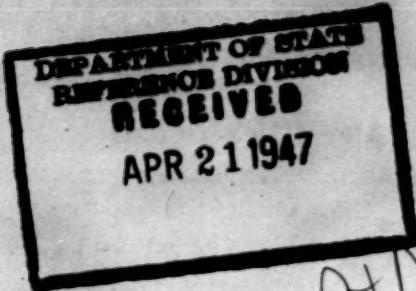
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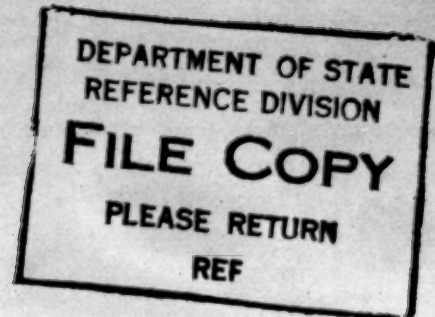
THE TREND OF INFLATION IN CHINA: 1946-47

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SUMMARY

Civil war exerts a multiple effect on China's inflation problems. Its support requires a large volume of resources that must be diverted from private consumption, and its continuance prevents any significant increase in total output that could facilitate the transfer of these resources. Since 1937, government revenues from taxes, monopolies, and public borrowing have provided only a minor share of the government's total expenditures, forcing the government to finance a large portion of the resulting budgetary deficits through note issue. The cumulative effects of the interaction of currency expansion and rising prices have rendered inflation increasingly less effective as a method of taxation. During almost ten years of rising prices, the various groups in the economy have become more efficient in their attempts to protect real income against further currency depreciation. Larger increments of note issue consequently are required to divert needed resources to government channels.

Prospects for 1947 indicate that the requirements of the government for support of its military operations will continue to grow; that the government will have to finance a larger proportion of its expenditures through note issue; and that the deflationary inflow of resources from abroad will be reduced. Under these circumstances continued currency depreciation at an accelerated rate appears to be inevitable, and currency collapse in 1947 seems likely.

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THE TREND OF INFLATION IN CHINA: 1946-47I. INFLATION DURING 1946A. General Considerations

The extent of inflation in China during the period December 1945 - January 1947 is indicated by the following index of wholesale prices in Shanghai. Movements in Shanghai prices do not necessarily reflect conditions prevailing throughout China, but they nevertheless indicate trends. Although wide differences have existed in relative price movements among different areas, available data indicate that such differences frequently are equalized after varying time lags.

NOTE ISSUE AND SHANGHAI WHOLESALE PRICES,
DECEMBER 1945 - JANUARY 1947

Period	Total CN\$ Outstanding (in billion CN\$)	Index of Note Issue (December 1945 = 100)	Monthly Increase in Note Issue (percent)	Index of Shanghai Wholesale Prices (Jan.-June 1937 = 1)	Index of Prices (December 1945 = 100)	Monthly Increase in Prices (percent)
Dec. 1945	975	100	--	885	100	--
Jan. 1946	1,100	113	13	928	105	5
Feb. "	1,230	126	12	1,756	198	89
Mar. "	1,359	139	10	2,560	289	46
Apr. "	1,528	157	12	2,582	292	1
May "	1,674	170	10	3,807	430	47
June "	2,113	217	26	3,724	420	- 2
July "	2,167	222	3	4,072	460	9
Aug. "	2,376	244	10	4,286	483	5
Sept. "	2,677	274	13	5,092	572	19
Oct. "	2,900	297	8	5,363	604	5
Nov. "	3,296	338	14	5,315	601	- 1
Dec. "	3,726	382	13	5,718	647	8
Jan. 1947	4,510	463	21	7,430	840	30
Average for the Period			13			20

The increase of over 350 percent in note issue during the period was accompanied by an increase of over 700 percent in the index of Shanghai wholesale prices--to a level 7,500 times that prevailing before the war (1937). This upward movement in prices, however, was characterized by sharp fluctuations in the rate of increase, while note issue increased at a relatively constant rate. On the average, prices during the period increased at the rate of 20 percent per month, a rate of increase exceeding the average for 1944 and 1945 despite the effect of significant deflationary factors in 1946 that were either absent or of less importance during the war.

In general, the sharp fluctuations in the rate of price increases during 1946, as well as the more rapid rate of increase during the first quarter, may be explained in part by the following facts: (1) the west coast shipping strike in the US, as well as changes in the government import controls during the year, resulted in an uneven flow of imports into the market and in sharp price fluctuations; (2) government gold sales, heavier in the latter half of the year, introduced an element of uncertainty in speculative channels regarding future price increases; and (3) the flow of population and liquid capital from the interior to Shanghai during the first quarter of 1946 exerted sharp upward pressures on prices.

The causal factors making for the over-all increase in prices during the period, however, had their source in the continuance of the

civil war. Large-scale military activities during 1946 were reflected in mounting budgetary deficits that the government financed largely by note issue; disruption of transport prevented an adequate distribution of agricultural crops and impeded the flow of industrial materials necessary for the rehabilitation of China's industry; the political division of North China and Manchuria between the two contending armies depressed output in those areas and shut off resources necessary to the integrated development of the country as a whole; and continued price spiraling increased the volume of idle resources in the form of commodity hoards, which in turn caused further currency depreciation. The increased territory brought under the sphere of the National Government after VJ-day proved to be a budgetary liability rather than an asset. Since the provincial and district governments appeared to be unable to collect sufficient tax revenues in formerly occupied areas, their support imposed an additional drain on the resources of the National Government.

B. Government Finance

Analysis of the government's fiscal operations during 1946 indicates the extent of its expenditures and their inflationary impact. Estimates by Chinese finance officials place government expenditures during 1946 at approximately CN \$5.5 trillion. Between 70 and 80 percent of this total is estimated to have been expended in support of military operations. In terms of exchange rates between CN and US dollars on the open market, total government expenditures in 1946 were

50 percent higher than the wartime budget in 1944; in terms of relative price indexes, they were two to three times higher than in 1944. In addition, this total in CN currency expenditures does not include an undetermined amount of goods and services appropriated by the government through extra-budgetary channels, either in the form of requisitions by military and administrative officials in local areas or as compulsory sales of agricultural crops to the government at prices substantially below the market prices. Although the volume of such appropriations was larger during the war period, it is still apparent that the real value of total government expenditures has expanded since VJ-day. Factors influencing this increased level of government expenditures include the following:

1. The cost to the government of fighting an offensive civil war appears to be greater than the cost of fighting a defensive war against the Japanese. Lines of combat were extended further from supply bases, while no apparent reduction was made in the number of men under arms.
2. Territory in North China and Manchuria brought under the sphere of the National Government has required heavy administration costs without commensurate tax revenues in this area.
3. Additional sums have been required to finance minimum reconstruction of basic industries and transport.

Revenues from taxation, government monopolies, and sales of enemy property did not keep up with the increase in government expenditures. Total revenues during 1946 were estimated by Chinese finance officials at CN \$2.0 trillion, leaving a budgetary deficit of CN \$3.5

trillion. Tax revenues in monetary form were reduced both because political instability and economic disorganization in the newly acquired areas diminished the ability as well as the incentive to pay taxes and because the time lag between the government's expenditures and its receipts from taxation resulted in a reduction in tax yields as currency continued to depreciate.

It is not clear whether government revenue estimates include receipts in CN currency from government sales of gold and foreign exchange. The fact that government revenues from taxation, government monopolies, and sales of enemy property alone are officially estimated at approximately CN \$2.0 trillion indicates that receipts from gold and foreign exchange sales are not included. Of the CN \$3.5 trillion budgetary deficit, CN \$2.7 trillion are accounted for by the increase in note issue. The remaining CN \$0.8 trillion probably were covered by receipts from gold and foreign exchange and by a possible increase in the use of government bank drafts in large denominations, which actually function as exchange media but are not included in note circulation. Since CN currency revenues from gold and foreign exchange can be roughly estimated at approximately CN \$1.5 trillion, it appears possible that the level of government expenditures was understated. At any rate, it is clear that resources obtained by the government through note issue in 1946 were significantly implemented by the net reduction of US 135 million in its gold holdings (computed at \$40 per ounce) and US \$244 million in its holdings of foreign exchange.

C. Counterinflationary Factors

The inflationary force of government fiscal policy during 1946 to some extent was offset by the following factors that increased the supply of goods and services either from government sources or from abroad: a net import balance on commercial account of US \$400 million; government gold sale of US \$135 million; UNRRA shipments of US \$270 million; US \$40 million of commercial lend-lease imports shipped under long-term credits; and government sales of enemy property estimated at CN \$0.5 trillion (or roughly US \$150 million at the average exchange rate on the open market).

The deflationary value of the net import balance on commercial account is overstated if the effect of concurrent offsetting factors is not considered. Despite two upward revisions in the exchange rate during 1946, the yuan remained consistently overvalued. The prospect of losses at an overvalued exchange rate encouraged exporters to increase their warehouse inventories in anticipation of exchange depreciation. Where exports were subsidized by the government, a net increase in monetary circulation occurred. The heavy inflow of imports, on the other hand, resulted in high profits to licensed importers, who were able to purchase exchange from the government at the official rate. Translated into speculative channels, these profits enabled traders to command larger holdings of real commodities in anticipation of further price increases. This increased volume of goods immobilized in speculative channels reduced the effect of the import balance on the supply of goods available for consumption.

Of total UNRRA shipments, approximately US \$225 million increased the supply of food, clothing, and other consumers' goods available for current consumption. The balance of US \$35 million represented material entering into industrial and agricultural rehabilitation programs that required additional governmental expenditures for labor and other domestic resources.

D. Changes in Public Confidence

The effectiveness of inflation as a method of taxation may be measured by the extent to which it can divert goods and services from private consumption to government channels with a minimum increase in prices. When resources are fully employed, its effectiveness will be reduced in proportion to the increase in velocity of monetary circulation during the process of currency expansion. Consequently, the effect of past inflation and prospects of future inflation on public confidence in the currency becomes increasingly important. To the extent that individuals and groups anticipate future price increases, cash balances are reduced and commodity holdings increased in the attempt to protect real income against further currency depreciation. The resulting increase in velocity, coupled with the induced shortage of goods, accelerates the spiraling of prices.

In this context psychological factors influencing public confidence in the currency were of significant importance in determining the extent of inflation in China during 1946. Prices during the period increased twice as much as note issue despite the substantial increase

in the supply of goods and services entering the domestic economy from government and foreign sources. Although increased industrial production was impeded by a poor transportation system and by price maladjustments arising out of the haphazard relative movement of prices during inflation, agricultural output during the period was 5 to 10 percent above the 1945 level. After allowance is made for inadequate marketing facilities and increased hoarding of goods, it still appears probable that the total volume of goods and services sold on the market at least did not decline during the period. On this assumption monetary velocity roughly doubled. The inability of the government to stabilize prices and increased pessimism on the part of the various groups in the economy regarding the government's ability to effect such stabilization as long as the civil war continued led to an increased flight from the currency to real goods. The flow of goods into speculative channels was further implemented by the willingness of commercial banks to lend short-term funds for speculative purposes or to enter speculative markets on their own account and by the ability of insiders to obtain government funds for their personal operations on the gold and commodity markets. In general, the interacting and cumulative effects of this process on production, prices, and note issue are apparent. In terms of note issue required, they reduced the effectiveness of inflation as a method of diverting resources to government channels.

II. PROSPECTS FOR 1947A. General Considerations

The dramatic increase in the rate of inflation during the first six weeks of 1947 reflects the operation of psychological factors in conjunction with a basically weak governmental fiscal policy. Shanghai wholesale prices and open market prices for gold and US dollars advanced 30 percent in January and another 50 percent in the first two weeks in February. Immediate factors in this accelerated depreciation included the revision in exchange rate policy and increased pessimism regarding the continuation of the civil war. The rapid rate of currency depreciation culminated in the government's announcement of new economic measures designed to halt inflation by prohibiting speculation, balancing the budget, and rolling back wages as well as the prices of rationed commodities in specific areas to January 1947 levels. In addition, the exchange rate was raised to CN \$12,000 to US \$1 in an effort to expand exports, encourage remittances, and thus conserve the government's holdings of foreign exchange assets.

Analysis of prospective changes during 1947 in the factors underlying inflation indicates that fighting the civil war on its present scale and preventing accelerated currency depreciation are mutually exclusive objectives. Continuance of the civil war with the present resources available to the National Government implies a multiple increase of the budgetary deficit in monetary terms and a probable increase in real terms; a relatively greater currency expansion because

of depletion of the government's holdings of gold and foreign exchanges; and an increased flight from the currency reflected in accelerated monetary velocity and increased resort to barter. In 1947, moreover, the inflationary impact of currency expansion will be modified to a lesser extent by a net import of resources from abroad than it was in 1946.

B. The Prospective Budgetary Deficit

Official Chinese estimates of the 1947 budget place total expenditure at approximately CN \$10 trillion and revenues at CN \$7 trillion. Military expenditures were estimated (without making allowance for future inflation) at roughly CN \$4 trillion -- or, adjusted for price changes up to January 1947, less than half the amount required in 1946. In the light of the present level of military activities, this estimate appears to be completely unrealistic.

An increase in government expenditures in real terms during 1947 is indicated by the following probabilities:

1. Military appropriations, which represented between 70 and 80 percent of the total budgetary expenditures in 1946, will probably be increased in 1947. Fighting is likely to be more intense, battle lines will probably be further extended from supply bases, and that part of the US \$700 million in military lend-lease during 1946 that represented recurring military expenses will have to be borne by the National Government.
2. Budgetary deficits of local and provincial governments must continue to be financed by the National Government if regional allegiances to the National Government are to be maintained.
3. Extra-budgetary resources represented by the US \$40 million in civilian goods extended under the civilian

pipe-line agreement in 1946 will have to be supplied by budgetary currency expenditures in 1947.

4. Possible reduction in "non-essential" government expenditures will necessarily be small, since these expenditures, as a whole, represent a minor share of the total.

Government revenues during 1947, however, even on reasonably optimistic assumptions, cannot be expected to increase more than the probable increase in expenditures. Revenues might be increased over the 1946 level by the following developments:

1. If the sale of government enterprises, contemplated in the new economic program, is carried through to include the China Textile Corporation, the government could net approximately CN \$1 trillion (after allowance is made for the profits that would have accrued from the operation of the China Textile Corporation during the next year.) Should some of the receipts from the sale of government enterprises be derived from bank loans, the anti-inflationary effect would be proportionately reduced.
2. It is officially estimated that receipts from the sale of US surplus property and enemy assets will amount to approximately CN \$1 trillion in 1946 prices as compared with CN \$0.5 trillion in 1946. The surplus property, however, includes material with limited sale value in China.

Despite the government's intention of increasing administrative efficiency, continued currency depreciation in 1947 probably will reduce the real yield of taxes collected in CN currency. Prospective changes in the land tax are more difficult to assess, since the place of the land tax in the budget is not clear. Scattered reports indicate that the government in 1946 collected only a small fraction of the quotas originally established. Poor returns were influenced by political

instability and economic disorganization in North China and Manchuria. If tax receipts in kind can be increased in Central and South China during 1947, this increase will be offset to a significant extent by the greater proportion of troops now stationed in North China and Manchuria and the higher cost of supporting these troops when their supplies have to be purchased on the market.

C. The Inflationary Effect of the Deficit

A budgetary deficit in 1947 equal to the purchasing power of the deficit in 1946 would amount to approximately CN \$7.5 trillion at January 1947 prices. In monetary terms, this amount will be increased to the extent that prices increase during the year. Financing this deficit, however, will require a larger relative increase in note issue than the amount required in 1946. Government sales of gold in 1946 replaced approximately CN \$1 trillion in note issue and sale of foreign exchange replaced about CN \$0.5 trillion. The new government drive against speculation implies the cessation of gold sales and encourages the redemption of gold and US dollars for CN currency. In the last two weeks of February, 4½ million in US dollars were turned into the Central Bank for over 50 billion in CN currency. In addition, the government's sales of its own holdings of foreign exchange may be expected to be less in 1947 because of depletion of its holdings and the planned over-all reduction in imports. Since the difference between the increase in note issue and the budgetary deficit in 1946 was only CN \$0.8 trillion, it

is apparent that note issue in 1947 must be equal to and may exceed the total government deficit.

The actual volume of note issue that will be required in 1947 both depends on and influences the rate of inflation. Application of the relation between note issue and prices in 1946 would convert the budgetary deficit and required note issue of CN \$7.5 trillion at January 1947 prices to over CN \$25 trillion. This crude indication of the magnitudes involved is based on the unrealistic assumption that deterioration in public confidence will not be accelerated, or, in other words, that the rate of change in monetary velocity as well as the volume of goods and services offered for sale will remain constant during 1947. Change in these factors would bring a multiple increase in prices and required note issue.

A substantial reduction in the volume of goods and services marketed in 1947 is more likely. The net import balance on commercial account will be reduced; the inflow of gold from the government will be halted; UNRRA shipments will provide fewer consumers' goods; and no offsetting items will exist in 1947 for the US \$40 million in lend-lease consumers' goods provided on long-term credit in 1946. Although industrial production may be expected to increase slightly, continued currency depreciation probably will increase the area of barter in the agricultural economy.

The new economic measures aim at conserving the government's

foreign exchange assets by expansion of exports in relation to imports and by the increased use of private holdings abroad. However, the effect of reducing the net import balance from the high level reported in 1946 is inflationary. Its inflationary effect will be modified to the extent that exports are increased out of a reduction in warehouse stocks. This modification is likely to be of short duration, however, since continued inflation will tend to keep the yuan overvalued.

UNRRA shipments in 1947 are scheduled at US \$260 million, of which only US \$100 million represent consumers' goods. The remainder includes material for industrial and agricultural rehabilitation that will require government expenditures in CN currency for domestic labor and supplies.

Lack of basic materials and inadequate transport facilities will prevent any significant increase in industrial production. The effect of continued inflation on the volume of agricultural crops marketed, however, probably will be substantial. Throughout the period of inflation, farm prices, in general, have advanced less rapidly than consumers' goods prices. The consequent reduction in farm consumption arising out of these relative price movements tends to cause a withdrawal of farm crops from urban areas and an increasing reliance on barter in the local handicraft economy. Reports from Manchuria in January 1947 indicate that the government has been able to obtain soybeans from the farmer only on a barter basis for cloth.

This reduction in the volume of goods offered for currency may be further intensified by the halt in the flow of gold into the domestic economy. During 1946 heavy gold movements from Shanghai to the interior implemented the currency's effectiveness as a purchasing medium. The prospective reduction in the ability to exchange currency for gold, coupled with the government's increased reliance on monetary expenditures to support troops in the north, is likely to diminish the willingness to accept currency for goods and services.

The actual extent of the inflation in China during 1947 will be most significantly determined by psychological factors measurable by changes in monetary velocity. The fact that note issue will have to command a larger volume of resources in 1947 than in 1946, coupled with the already advanced stage of the inflation, points to a progressive deterioration of public confidence in the currency. This trend is likely to be intensified by changes in the military situation that point to the government's inability to gain victories sufficiently decisive to insure an early end to the war. Against the compelling force of underlying factors, the effect of the government's anti-speculation program will be of short duration. Prices in Shanghai, in fact, continued to rise during the first two weeks following the announcement of the new economic measures.

Speculative activity and hoarding may be expected to increase rapidly during the period; the reduced flow of agricultural output to

the market already has been noted. The process implies an increased flow of CN currency applied to a smaller area of goods and services at an advancing pace throughout the year. With no change in the extent of the government's military operations and no increase in aid from abroad, the use of currency to obtain goods and services for the government may well become completely ineffective in 1947.